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To be clear: Gaume and Desquilbet are not talking about any kind of data manipulation or forgery here. This is about whether some of the underlying studies in my meta-analysis were from ecological experiments, i.e. the environmental conditions were experimentally changed (manipulated) by the researchers (my definition). In fact, most of our ongoing interchange has been about data inclusion criteria.

And regarding such experimental studies, I do not at all agree with their assessment. A small minority of the studies (maybe 10%) indeed included locations that were changed by the researchers themselves, but the majority of the studies that G&D consider 'experimental' were either random events that happened during monitoring, or researchers have monitored different places with different conditions. To give an example, researchers may have monitored an undisturbed forest, and a rural site where a road was built some time during monitoring. But who is to say what is the most representative place to monitor? Another example would be a lake that was invaded by a mussel, vs a non invaded lake?

At no point during this 5+ years interchange, have Gaume & Desquilbet made clear what they find appropriate data to include to study the question whether insect numbers have declined or not. They have also not given clear definitions of what they consider an 'experiment' or a 'natural experiment', or what might be considered 'disturbance' before or during the monitoring. What is also unclear till this day is whether different choices of inclusion criteria would have led to different outcomes. In our 2024 paper, we excluded all of these experimental plots, and included more data that had been published since 2020, and we found slightly steeper declines for the terrestrial fauna, which was probably rather due to the additional monitoring data, and not because of the exclusion of experimental plots.

I would have loved to see a counter analysis based on a different data selection, but that has also not happened during these 5+ years